CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Elk Spring Water Development
Proposed Implementation Date:	June, 2013
Proponent:	Red Rock Lakes / US Fish & Wildlife Service
Location:	Section 3, Township 14 South – Range 1East
County:	Beaverhead County

I. TYPE AND PURPOSE OF ACTION

The Red Rock Lakes National Wildlife Refuge (RRLNWR) has submitted an Improvement Request Form (Application) for a proposed redevelopment of a Stockwater pipeline in the Alaska Basin area of the Centennial Valley on state land. The proposal entails the redevelopment of Elk Spring; a submersible pump will be used to pump water into a new above ground and underground pipeline, to supply two new stock tanks that will be replacing existing tanks that are in disrepair.

The water will be pumped up hill approximately 600 feet to the top of the ridge. From the ridge the water will be run down hill to the stock tanks. A generator with a propane tank will be used to run the pump. There will be approximately 1,500 feet of new 1 ¼ inch of pipeline installed. Approximately 600 feet of the pipeline will be above ground and the rest will be underground.

The water rights for Elk Spring are shared between, the MT DNRC, USDA Forest Service and Huntsman Ranch.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

This project was scoped with the surrounding landowners and agencies. The following people were contacted.

MT FWP Fisheries Biologist, Matt Jaeger
MT FWP Wildlife Biologist, Craig Fager
MT DNRC Archeologist, Patrick Renee
Moorse Creek Grazing Association
Skyline Sportsmen's Assoc. Inc.
Tony Schoonen, Action for Access
Beaverhead County Commissioners
Lorry Thomas, Anaconda Sportsman
Evan Huntsman
Alan Martinell
MT Stockgrowers Association

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

No other government permits are needed for this proposal. MT DNRC Water Rights Division was consulted for this project and the proposal was approved as presented.

3. ALTERNATIVES CONSIDERED:

A. Action Alternative: Allow RRLNWR to re-develop Elk Spring, install a submersible pump, and pump water to two new stock tanks on state land.

B. No Action Alternative: Deny RRLNWR's proposal to re-develop Elk Spring, install a submersible pump, and pump water to two new stock tanks on state land.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

The proposed project area is located on alpine glacial deposits and alluvium derived from primarily ancient metamorphic bedrock (quartzites and amphiboles) and volcanic bedrock. Bedrock is common at shallow depth, mainly along ridges and convex slopes. Predominant soils on northerly slopes of 10 to 45%, and ridges are shallow to moderate depth, cobbly sandy loams and cobbly loams. Topsoils are 3-7 inches cobbly loams and sandy loams. These soils are well drained and tend to be droughty. Overall productivity is estimated as low to moderate and cold climate and moisture availability limit plant growth. On concave terrain and swales of 15-35% slope, there are soils with higher clay contents and better site quality. Erosion potential for disturbed soils is moderate, except for steeper side slopes. Soils have a relatively long dry or frozen season. Primary concern for soil productivity is maintaining the shallow topsoils, by minimizing displacement. Southerly aspects with moderate to steep slopes typically have higher rock content soils. These soils are droughtier and include open forest and range sites. The depth of organic rich surface soils is similar to adjacent range sites, and these sites were historically more open stands of trees and native rangelands. Erosion potential for disturbed soils is moderate. Low soil bearing strength and compaction/rutting hazard is a concern in spring/early summer, when soils are wet.

This proposal if done during dry conditions would have very little ground disturbance and affect only a small area. Approximately 900 feet of plowed 1 ¼ inches line will be bored into the ground causing very little soil disturbance. No long term or cumulative effects to soil productivity, compaction or soil erosion would occur if the spring is re-developed and the stock pipeline was installed.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

This proposal is located in the watershed of Red Rock Creek in an area commonly referred to as "Alaska Basin." Red Rock Creek drains a watershed area of approximately 22,134 acres. The proposal is located in areas that are drained by several small ephemeral draws and swales that do not contain defined stream channels. These ephemeral drainage features are tributary to several unnamed headwater intermittent and perennial tributaries to Red Rock Creek. Red Rock Creek is a tributary to Upper Red Rock Lake, which feeds the remaining lower Red Rock River system. The Red Rock River drainage is located within the Upper Missouri River Basin.

Downstream beneficial uses in the affected watersheds include: domestic, irrigation, livestock watering, wildlife, and cold-water fisheries. There are several existing water rights for livestock and irrigation uses of surface water located immediately downstream of the proposal.

Elk Spring is already being used to fill stock water tanks found on the Forest Service allotments to the north west of the state ground. When the existing system was working properly no adverse effects to water quality were observed. By redeveloping the spring and replacing the two stock tanks to the uplands, cattle will be dispersed out of the spring bottom reducing erosion and sediment. No long term or cumulative effects are anticipated to water quality if this proposal was to move forward and be implemented.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

This proposal would not create any significant air particulate problem and is not located in an area identified as a non attainment zone. No long term or cumulative effects to air quality are anticipated from this proposal.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

The proposed project area is located in the northeast end of the Centennial Valley along the southeastern tip of the Gravelly Range. State ownership within the project area is 9,008 acres of which 1,518 acres are forested. Adjacent ownership to the north and east is the Beaverhead-Deerlodge National Forest, to the south the Red Rock Lakes National Wildlife Refuge and to the west is private. Lands within the proposed project area occur in open, rolling country with generally broad and gentle ridge tops. Slopes range from 10-50% with an elevation range of 6600 feet to 8200 feet. The area is primarily grassland to the south turning into timbered blocks to the north. A mixture of conifer and aspen forest comprises the State timbered parcels.

The location of the proposed spring development is comprised of all or parts of 12 sections. Collectively this area is known as the “Alaska Basin grazing leases”. The east end of the valley has a number of sensitive species (10) but most of them are located in the sand dunes area of the valley and are at least a couple of miles away from this proposal. The vegetation in the area of the proposal is made up of high elevation native grasses and forbs that will not be affected by this proposal.

No long term or cumulative effects are anticipated from the implementation of this proposal.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors and songbirds potentially use this area. There are no known fish-bearing streams within the immediate vicinity of the proposed project area; however the spring does supply water to Red Rock Creek via ground water.

Because Arctic graying use Red Rock Creek for spawning, Matt Jaeger, Fisheries Biologist for the FWP has requested that if the spring development is allowed to be re-developed the system be shut off when not in use. Cursory hydraulic analysis suggests that Red Rock Creek gains about 3 cfs from groundwater in the reach adjacent to Elk Spring. Matt Jaeger wants to be sure that expression of this water isn’t disrupted by pumping or piping water away from this reach.

Because the system would only be used in the later portion of the grazing season due to its high elevation effects would be minimal to Red Rock Creek. The lessee agrees to the restrictions that Matt prescribed. Because the water will need to be pumped up the hill using an electric generator the lessee has no intention of running the pump when livestock are not on the range.

No long term or cumulative effects are anticipated to occur to wildlife, birds or fish if the proposal is implemented.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

The proposed project area is situated approximately 1.5 miles west of the Greater Yellowstone Ecosystem Grizzly Bear Recovery Zone. In recent years, grizzly bears have been documented ranging greater distances outside of the Yellowstone Ecosystem. Grizzly bears have occasionally been documented in the vicinity of the proposed project area and the proposed project area lies within a zone considered as occupied habitat (Interagency Occupied Habitat Map, September 2002). As such, the lands in the general vicinity of Red Rocks Lakes were identified as those where one would reasonably expect to find grizzly bear use occurring during most years. DNRC is not aware of any specific observations of grizzly bears associated with the proposed project area; however, periodic or transient use is possible.

A number of other sensitive species were identified by Natural Heritage Program that are near the project area. These species include Black crowned Night – Heron; White- faced Ibis, Bald eagle, Long-billed Curlew, Franklin's Gull, Forester's Tern, Clark's Nutcracker, Cassin's Finch, Yellowstone Cutthroat Trout, Arctic Grayling, and Hoary Bat. None of the species are located within ½ mile of the proposed project area. Most of the bird species are associated with the Red Rock Lakes National Wildlife Refuge lakes, streams and the Red Rock River.

No long term or cumulative effects are anticipated to occur to wildlife, birds or fish or sensitive species should this proposal be implemented.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

No cultural or paleontological resources were identified during field inspection within the proposed project area. No additional archaeological investigative work is recommended.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The project is located in an isolated area away from any population. The development will replace an existing stockwater development site so there shouldn't be any changes to the aesthetics of the area. No long term or cumulative effects to aesthetics are anticipated from the implementation of this proposal.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

No demands for additional environmental resources are required if this proposal is implemented. No direct, indirect or cumulative effects to environmental resources should result from this proposal.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The DNRC has a request from the TNC to do a 75 acre burn in section 4, T13S – R2W which is currently being scoped and an EA will be completed on the proposal. If approved the burn would take place in late April or early May 2013.

The DNRC, Dillon Unit is also looking at a possible timber permit to finish removing dead and dying timber from bark beetle infestation that has occurred in the Patchtop/Teepee Creek area. There is also an active harvest of Post and Rails taking place in the Teepee Creek drainage that will be completed during the summer and fall of 2013.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

No known health or safety risks are anticipated from the completion of this proposed project.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

This project has the potential to improve available forage for livestock. This would be accomplished through more even distribution of cattle use over the entire area including the uplands. The even distribution decreases the likelihood of overutilization of the range resource and has the potential to improve wildlife habitat. The action alternative may increase AUM's in the long term.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

The project will not create or eliminate permanent jobs in the area.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No significant increase in tax revenues at the state or local level are anticipated as a result of this proposal.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

No increased demand for government services are expected as a result of this proposal.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

In November 2003, the U.S. Forest Service implemented the Antelope Basin/Elk Lake Allotment Management Plan, directing the management of domestic livestock in the southern Gravelly Mountains. No effects are expected.

No locally adopted environmental plans will be affected by this proposal.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Persons having legal access to the tracts and possessing a valid state lands recreational use license or FWP conservation license may conduct recreational activities on the tracts. The proposed project would not affect access for the general public. This area receives considerable hunting pressure during the big game hunting season. Currently there aren't any designated open roads on the state section, but this doesn't stop recreationist from using the area via motorized vehicles. This includes the use of existing roads as well as some of road travel. There is some concern that installing the pipeline will cause additional off road travel to occur. If the pipeline is installed there will be a number of new trails used by pickup trucks, and the dozer plowing the pipeline in. Because the area is easily accessible being open range land the DNRC is concerned that the new trails will be used for recreation after the project was completed. This recreational use could lead to erosion and noxious weeds being introduced to the area reducing productivity and AUM's.

The area is not close to any populated areas so enforcement of the DNRC's recreational use rules is not easily accomplished. Mitigation measures would include putting up signs, barriers and gates to restrict and discourage off road use.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

No change in population will result by implementing this proposal.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

No change in social structures and mores are expected as a result of this project.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

No change in social structures and mores are expected as a result of this project.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

This project has the potential to improve available forage for livestock. This would be accomplished through more even distribution of cattle use over the entire area including the uplands. The even distribution decreases the likelihood of overutilization of the range resource and has the potential to improve wildlife habitat. The action alternative may increase AUM's in the long term.

EA Checklist Prepared By:	Name: Timothy Egan	Date: April 10, 2013
	Title: Dillon Unit Manager	

V. FINDING

25. ALTERNATIVE SELECTED:

Select Action Alternative.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

The EA checklist did not project impacts that warrant the completion of a full EA or the need for a EIS.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

	EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	Name: Hoyt Richards	
	Title: CLO Area Manager	
Signature: /s/		Date: April 22, 2013